



G.A.T.E.WAYS

invites gifted Year 1 and 2 children

with a love of science to

'ARGH – THERE'S A DINOSAUR

IN MY BACKYARD!'

G.A.T.E.WAYS is an independent organization offering challenging and enriching activities and experiences to develop and extend highly able children

This *JOURNEY* for both girls and boys will run over four sessions. Dinosaurs often have been the first topic that introduces young children to the excitement of science. This program aims to introduce young students to some of the basic evidence-based science behind dinosaurs. Students may already know much about dinosaur names, types and sizes. This program aims to immerse interested students even further by utilising hands-on activities to demonstrate dinosaur structure, function and even fossilisation. The students create a number of 3D models. If your child is serious about dinosaurs, then this program is a fun way to channel that interest further into the world of science.

Requirements:

A blank exercise book,/paper and a grey lead pencil ; coloured pencils; textas ; an eraser and ruler

Week one: Any toy dinosaurs for show and tell – if you have one!; a shoebox with lid

Week two: One newspaper, tabloid or broadsheet.

Week three: one litre container of play dough (for recipe see McKenzie's' cream of tartar)

Week four: One small plastic dinosaur suitable for burying (5-10 cms) and a large blown egg, packed in tissue in a plastic tub. **Note: This program is unsuitable for children with an egg allergy**

Also bring a small photo of yourself and a stamped, self addressed DL envelope for your report to session 1 and a snack each week (no nuts please)

Session One

Are all dinosaurs dead?

There are still many questions being asked about dinosaurs. Like many areas of science, revision is constant. What is a dinosaur? We take a look at some of our funny ideas about dinosaurs. How do we know they existed? What is a fossil? How can we tell the difference between a fossil and a bone or a fossil and a replica? What are dinosaurs' nearest relatives? What dinosaurs do you know and can you draw them to scale? Do you know when the golden era of dinosaurs was? How are they named? Why do many dinosaurs names end with 'saurus'; what are some that don't? In this session we'll learn to walk like a dinosaur and discover some famous Australian dinosaurs. We'll make a simple model of a dinosaur and compare it with the body plan of other reptiles. We'll examine reptile scales and bird feathers; if time permits we might add some muscle to our model dinosaurs. We'll also investigate if any kinds of dinosaurs are still alive today.

Session Two

Dinosaur sheep and cattle

In this session we'll investigate the commonest of all dinosaurs; the plant eaters or herbivores. Plant eaters probably outnumbered the meat eaters by 10 to 1, maybe more. Most dinosaurs were like our sheep and cattle and probably wandered around in large herds. How did some dinosaurs get so big? How would an elephant compare to a brachiosaurus? Can we imagine what the world looked like in the golden era of the dinosaurs? What plants would we recognise from the time of the dinosaurs? Outside we'll chalk up some big dinosaurs and back inside we'll make a thagomizer, the deadly tail spike of stegosaurus. We'll also find out about some of the other technical terms for dinosaur body parts such as gastroliths, coprolites and neck frills.

Session Three

Would we have stood a chance against velociraptor?

In this session we'll find out what makes a carnivore. Is it just the teeth? Are you a carnivore or a herbivore? We'll look at some carnivores we know and what they all have in common in terms of behaviour and anatomy/teeth / eyes / claws / hearing. We'll examine various carnivore skulls for clues. We'll also recreate the world's only known dinosaur stampede, which occurred 90 million years ago in Lark Quarry, Queensland. We'll take our chances against a large theropod. As a way of remembering the stampede, you will print your own replica of the stampede. We'll also make our own dinosaur footprint to take home.

Session Four

Whichever way you look at it, dinosaurs leave an impression.

In our final session, we will make a 'fossil' using a plastic toy and plaster of Paris as well as a fossil leaf impression. We'll hold and examine lots of fossils and find out where to find more. We'll find out what sorts of rocks are the right types in which to find fossils. We'll investigate a range of dinosaur photographs and books of nests and eggs. We'll also have fun as we have a go at making a hatchling dinosaur to fit inside our large egg. Finally, we look at some short videos of dinosaurs and discuss if it is possible to say if the films are correct.

Assessment and reporting

Students will be assessed on their involvement in the program. Each student will have a brief report summarising the student's contribution to discussions, involvement with activities and participation in creating artefacts.

About the presenter

Tim Byrne has worked as an Education Officer at Museum Victoria and presented many different fossil/dinosaur programs. He has been fortunate to attend many fossil field trips and has even organised a few field trips himself. He has recently begun exploring the connection between science and art. He has also begun to appreciate the idea of birds as a kind of living dinosaur.

